

COMMISSION BRIEFING SLIDES/EXHIBITS

**BRIEFING ON RADIOACTIVE SOURCE SECURITY
EXPERIENCE WITH NSTS**

APRIL 23, 2009

**Briefing on Radioactive
Source Security
Experience with NSTS**

23 April 2009

Kate Roughan

Director, Regulatory Affairs

Quality Assurance

QSA Global Inc

Implementation of NSTS

QSA Global Inc

- **Worldwide manufacturer and distributor of radioactive sources for use in industrial, medical and research applications**
- **Ship approximately 10,000 Cat 2 radioactive sources annually**

Implementation of NSTS

- **History**
 - **No industry involvement – even after repeated offers and requests by industry since 2006**
 - **No batch upload capability**
 - **No pilot program testing with users**
 - **No access to online NSTS when system went live**

Implementation of NSTS

- **Experience**
 - **Credentialing lengthy, difficult process (photos, notary required)**
 - **Credentialing not covered under rule making**
 - **What is its enforceability?**
 - **Regulatory burden not estimated**
 - **Private personal information required**

Implementation of NSTS

- **Experience**

- **Very time consuming, due to large number of daily transactions (100-150) QSA generates automatic faxes for NRC data entry (100 faxes daily)**
- **No advantage for licensee to access NSTS web interface, using the fax, phone, mail or email is easier**
- **NSTS not up to date, not real time**

Implementation of NSTS

- **Experience**

- **Inventory reconciliation will be difficult as NSTS not up to date and unclear if all licensees entering data**
- **Due to a loosely defined NSTS when the comments for Cat 1 and 2 were made, cost estimates for implementation could not be and were not accurate**
- **To date QSA > \$100,000**

Implementation of NSTS

- **Recommendations**
 - **Determine regulatory status of credentialing requirement**
 - **Remove duplicative requirements, import/export notifications (10 CFR 110) and verification of receipt at end user by shipper (M&D ASM Order)**
 - **Determine logical plan to retrofit the large amount of transactions not currently in NSTS or have potential errors**

Implementation of NSTS

- **Recommendations**
 - **Implement batch upload capability**
 - **Consider tiered access to NSTS, ie M&D licensees have ability for direct “data dump” into NSTS without any manual intervention**
 - **NSTS immediately populated**
 - **Minimum involvement of NRC/licensee**

Implementation of NSTS

- **Recommendations**

- **Involve actual users/licensees in process – need real world input for any rule to be effective**

- **Industry on Change Control Board**

- **Run pilot programs with users**

- **WBL and LVS – must understand actual process and involve licensees early in proposals and development to get accurate inputs**

Implementation of NSTS

- **Recommendations**

- **Complete a full re-evaluation for inclusion of Cat 3 and 1/10 Cat 3**

- **perform accurate regulatory burden analysis based on real information from implementation for Cat 1 and Cat 2**
 - **many potential users not aware of requirement, results in more unreported transactions and erroneous results**
 - **QSA – 15,000 to 20,000 additional transactions annually**

Implementation of NSTS

Beginning to see NRC involving industry

Positive support of NRC help desk personnel

Thank You

? Questions ?



Briefing on Radioactive Source Security

April 23, 2009

Charles L. Miller, Director
**Office of Federal and State Materials and
Environmental Management Programs**

Major Accomplishments Since April 2008

- **NSTS Deployment**
- **Fingerprinting Requirements**
- **CsCI Public Workshop and
Commission Paper**
- **Completed Assessment of
Materials Security Programs**

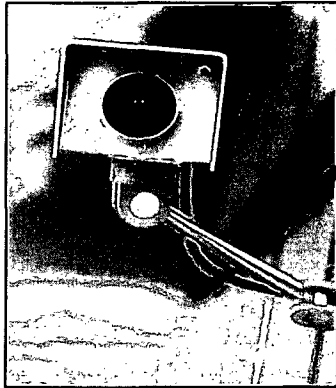
Overview and Radioactive Materials Security and Control Enhancements

**Robert J. Lewis, Director
Division of Materials Safety and State
Agreements/FSME**

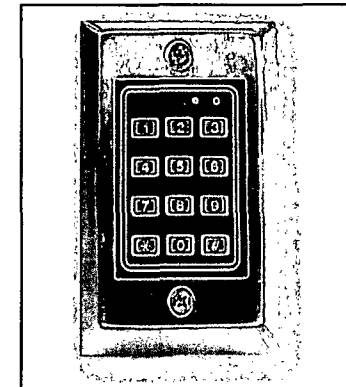
Overview

- **Radioactive Materials Security and Control Enhancements**
- **Interagency and International Coordination**
- **Integrated Source Management**

Radioactive Materials Security and Control Enhancements



| 1. R. THUMB | 2. R. FORE | 3. R. MIDDLE | 4. R. RING | 5. R. PINKY | | | |
|--|------------|--|--|-------------------|---------------|-------------|--------------|
| | | | | | | | |
| 6. L. THUMB | 7. L. FORE | 8. L. MIDDLE | 9. L. RING | 10. L. PINKY | | | |
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Progress on Security Orders

- **Increased Controls**
- **Fingerprinting**
- **Training Program**
- **Irradiator, M&D, and RAMQC
Transport Re-Inspections**

Cesium Chloride

- **CsCl Public Workshop**
- **Visits to Manufacturers**
- **Irradiator Hardening Pilot Project**
- **SRM - SECY 08-184 “Strategy for the Security and Use of CsCl Sources”**

Organization of Agreement States' Views

**Julia A. Schmitt, Manager
Office of Radiological Health/Nebraska
Department of Health and Human
Services
and
Chair, OAS**

OAS Views

- **Increased Controls and Fingerprinting**
- **Prioritization and Working Groups**
- **NSTS and WBL**

**Interagency and International
Coordination
Radiation Source Protection and
Security Task Force**

**Kim K. Lukes, Health Physicist
Source Management and Protection
Branch/MSSA/FSME**

Radiation Source Protection and Security Task Force

- **Primary vehicle for advancing source security issues across the government**
- **2010 report to the President and Congress**
- **Routine status update meetings**

Major Subgroup Accomplishments

- **Radiation Sources Subgroup**
- **CsCI Subgroup**
- **Public Education Subgroup**

Ongoing Efforts

- **Alternative Technologies Subgroup**
- **Evaluation of Financial Assurance Working Group**

**Interagency and International
Coordination
Other Coordination Efforts**

**Richard P. Correia, Director
Division of Security Policy/Office of
Nuclear Security and Incident
Response**

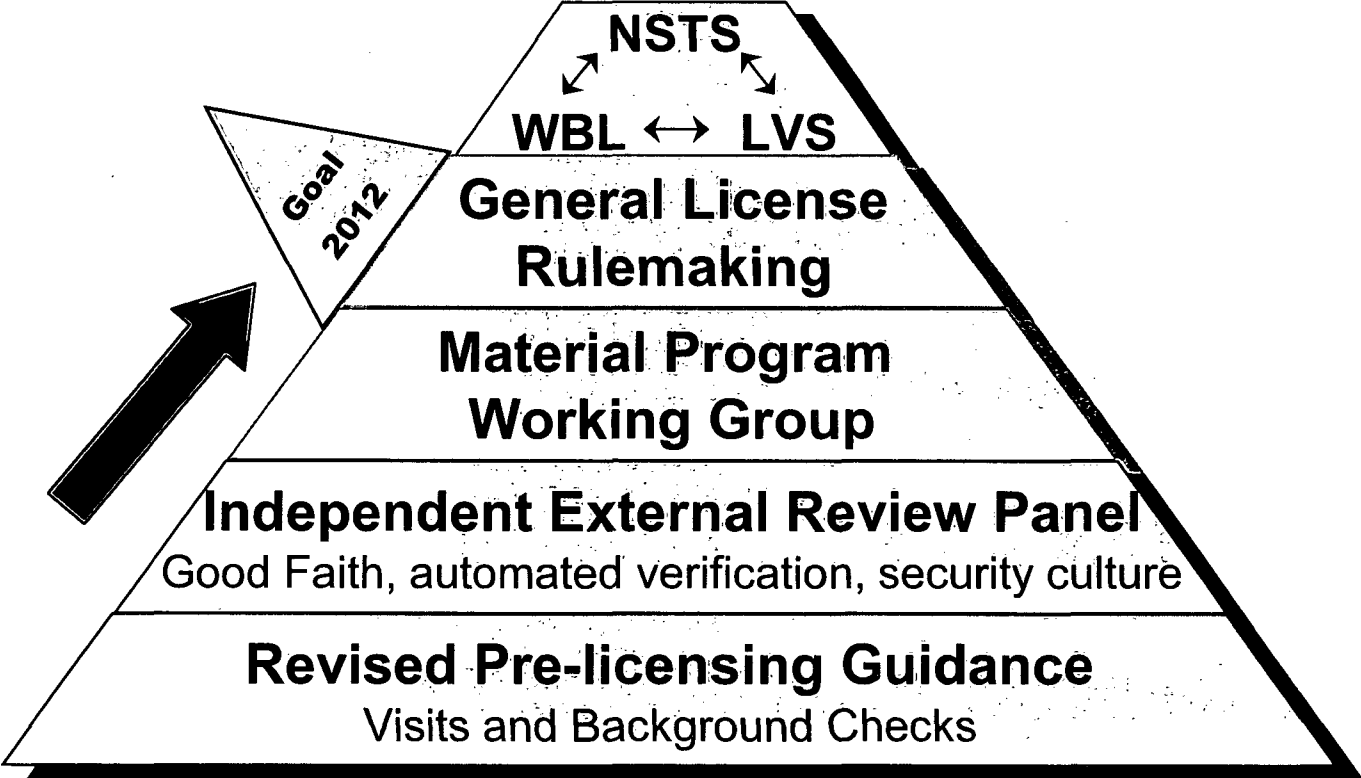
Other Coordination Efforts

- **Nuclear Government Coordinating Council**
- **NRC/DHS/NNSA Trilateral Activities**
- **International Security Standards**

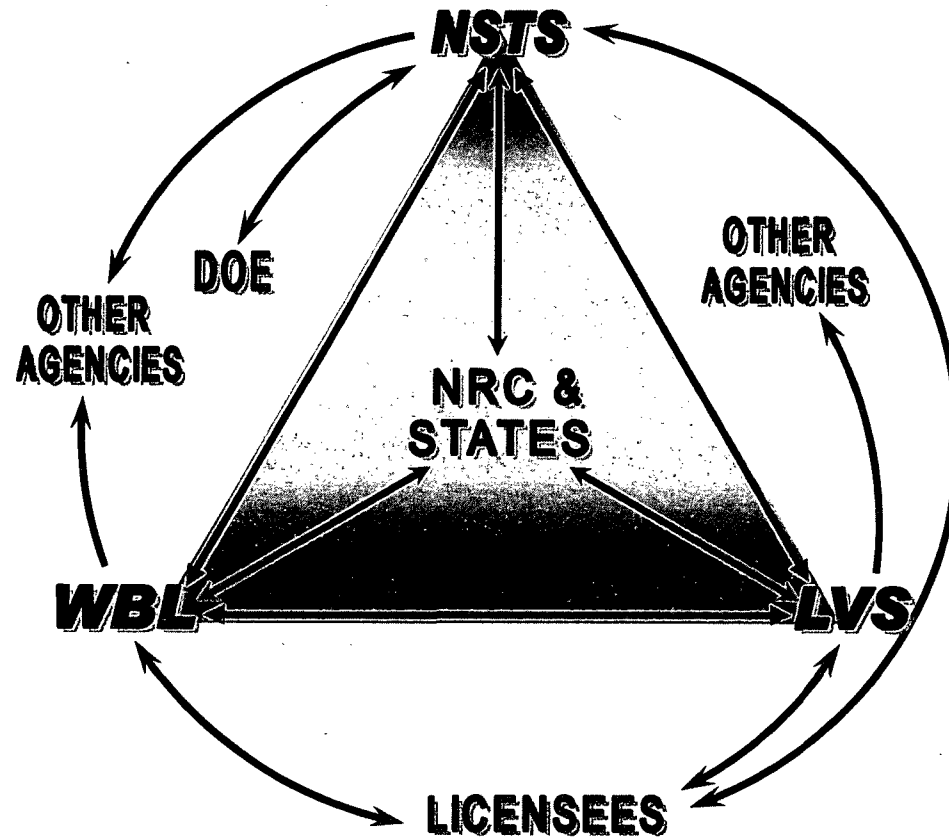
**Integrated Source
Management
Vision, WBL, and LVS**

**Terrence Reis, Deputy Director
National Materials Program
Directorate/MSSA/FSME**

Integrated Source Management



Integrated Source Management-Vision



WBL Status

- **Replacement of License Tracking System for Materials Licensing**
- **Nationwide License Repository**
- **Coordination with Agreement States – Working Group**
- **Proceeding with Selected Alternative**

LVS Status

- **Automated Verification Checks Using WBL and NSTS Data**
- **Users: Regulators, Government Agencies, Distributors/Licensees**
- **Initial Deployment in FY11**

**Integrated Source
Management
NSTS and Related Security
Rulemakings**

**Merri L. Horn, Sr. Project Manager
Rulemaking Branch B/Division of
Intergovernmental Liaison and
Rulemaking/FSME**

NSTS Overview

- **Available to licensees for use on January 5, 2009**
- **Users of Category 1 and 2 radioactive sources reporting inventories and transactions**

NSTS Status

- **Deployment Activities**
- **NSTS Use**
- **Outreach**

NSTS Next Steps

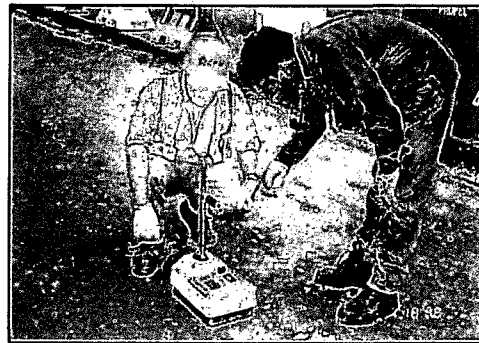
- **Inspection and Enforcement**
- **Future Enhancements**
- **Expansion of NSTS**

Related Security Rulemakings

- **10 CFR Part 37 Rulemaking**
 - **Physical Security**
 - **Transportation Security**
 - **Background Investigations/Access Control**

Vision and Future of the Materials Security Arena

**Charles L. Miller, Director
Office of Federal and State Materials
and Environmental Management
Programs**



Acronyms

- **ACMUI – Advisory Committee on Medical Use of Isotopes**
- **CsCl – Cesium Chloride**
- **DHS – Department of Homeland Security**
- **DNDO - Domestic Nuclear Detection Office**
- **DOE – Department of Energy**
- **FSME – Office of Federal and State Materials and Environmental Management Programs**
- **GAO – Government Accountability Office**
- **GL – General License**

Acronyms

- **IAEA – International Atomic Energy Agency**
- **IERP – Independent External Review Panel**
- **IICWG – Implementation of Increased Controls Working Group**
- **IMPEP – Integrated Materials Performance Evaluation Program**
- **LVS – License Verification System**
- **M&D – Manufacturer and Distributor**
- **MPKI – Managed Public Key Infrastructure**
- **MPWG – Materials Program Working Group**
- **MSSA – Materials Safety and State Agreements**

Acronyms

- **NGCC – Nuclear Government Coordinating Council**
- **NNSA – National Nuclear Security Administration**
- **NRC – Nuclear Regulatory Commission**
- **NSTS – National Source Tracking Systems**
- **RAMQC - Radioactive Materials Quantities of Concern**
- **RDD – Radiological Dispersal Device**
- **RED – Radiological Exposure Device**
- **SRM – Staff Requirements Memorandum**
- **WBL – Web-Based Licensing**